

# Safety & Health for the Commonwealth

MASSACHUSETTS Division Of Occupational Safety  
Asbestos & Lead Program

Winter 2002

Volume I, Issue III

## Asbestos in Vermiculite Insulation

*The U.S. Environmental Protection Agency (EPA) offices have received a large number of phone calls from citizens concerned about insulation that might contain asbestos in their homes. EPA is gathering more information about vermiculite insulation and other products containing vermiculite that may be contaminated with asbestos. If you suspect vermiculite insulation is in your home, the safest thing is to leave the material alone. If you decide to remove or must otherwise disturb the material due to a renovation project, consult with an experienced asbestos contractor. The following information provides a common-sense approach to help you find out what kind of insulation is in your home and decide what to do if you have vermiculite insulation.*

### Background

Product names cannot be used to determine if your insulation might contain asbestos. All vermiculite is likely to contain small or trace amounts of asbestos. EPA believes that a number of manufacturers produced insulation from vermiculite. One mine in the United States produced over 70 percent of the world's vermiculite before the mine was closed in 1990. Vermiculite products generated from this mine were likely to have been contaminated with asbestos.

### Why is it a problem?

If disturbed, asbestos fibers in vermiculite insulation may get into the air. These fibers can be inhaled and become trapped in the lungs where they may cause diseases such as asbestosis, lung cancer, and mesothelioma. These diseases can develop many years after exposure to asbestos.

### What does it look like?

Vermiculite is a mineral that is shaped like a small nugget, and varies in color from silver-gold to gray-brown. The asbestos fibers contained in

vermiculite insulation are generally too small to be seen without magnification. Only a trained technician using careful microscopic examination can see asbestos fibers.



Microscopic image of asbestos fibers

### What should I do if I have vermiculite insulation in my home ?

Look at the insulation without disturbing it. If it appears you have vermiculite insulation in your home, we recommend the following steps:

- If possible, leave the insulation undisturbed. Asbestos particles will not become airborne if the insulation is contained. If it's sealed behind wallboards and floorboards or is isolated in an attic that is vented outside, the best approach is to keep it in place.

- If you are planning to remodel or replace vermiculite insulation, have it tested first.

- EPA recommends using a trained and accredited professional to conduct the tests. If you decide to remove the vermiculite home insulation, use accredited, licensed asbestos removal professionals. Use of a "negative pressure enclosure" technique will prevent asbestos fibers and dust from escaping from the attic into the rest of the home. **Do not attempt to do this yourself.** You could spread asbestos fibers throughout your home, putting you and your family at risk of inhaling asbestos fibers.

After the vermiculite insulation is removed, you may want to consider having air monitoring tests done in your attic and throughout the living areas of your home. This is to ensure that the concentration of asbestos fibers in the home is low or not present.

### How do I find an accredited asbestos removal professional?

An accredited asbestos inspector has undergone approved training and then taken examinations to be accredited.

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## ***Charter Schools: Are you in compliance?***

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The Environmental Protection Agency (EPA) under the Asbestos Hazard Emergency Response Act (AHERA) requires each elementary and secondary school to perform an inspection of asbestos-containing building material (ACBM) and to prepare an asbestos management plan. The AHERA regulations further require a reinspection of the ACBM at least once every three years.

The Division of Occupational Safety, Asbestos and Lead Program has been appointed as the State Designee for the responsibilities of enforcement of these requirements.

The Asbestos and Lead Program is offering our assistance in answering any questions or to offer advice in development of the Management Plan and asbestos recordkeeping requirements.

Schools must send their completed Management Plan to this Division for approval prior to use of the building. The management plan will be in effect 90 days after submission of the plan to this office unless the plan is disapproved.

The penalty for failure to comply provides civil penalties of up to \$5,000 per day when a Local Education Agency (LEA) fails to conduct inspections consistent

with AHERA.

The Division of Occupational Safety will be conducting targeted compliance for Charter Schools under the AHERA. There are approximately 75 new Charter Schools in the Commonwealth. Previously, DOS had notified these schools of their requirements for submission of an asbestos management plan for review and approval.

Charter Schools that need assistance in complying with these requirements should contact the Asbestos and Lead Program at (617) 969-7177 for further information.

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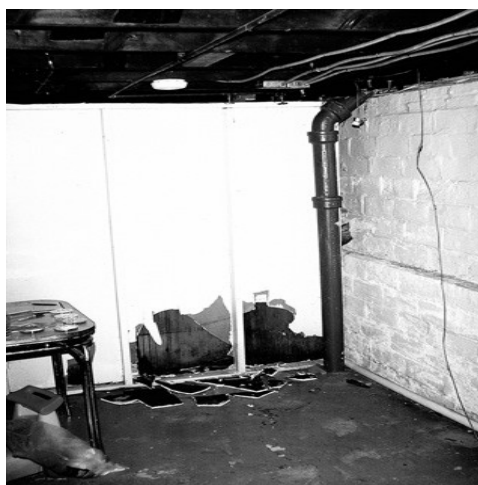
## ***Water Damaged Materials And Indoor Air Quality***

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The Massachusetts Occupational Hygiene/Indoor Air Quality Program provides the following information and recommendations. Water damage to carpeting, ceiling tiles, insulation, and other materials can present problems due to microbial contamination and odor. The source of water causing the damage is a significant factor. Sanitary plumbing leaks are a clear health hazard. Water contaminated by passage through chemically treated materials or from outside puddling areas can have additional impact.

Any water damage can result in microbial growth. All that is needed for microbial growth to occur is a substrate, nutrients, warmth, and moisture. Wood, paper, some carpets and carpet backings, and other building materials and furnishings act as both substrate and nutrient. Substrates are surfaces that will trap nutrients such as dead skin cells, food crumbs, dust, dust mites, animal dander, dead insect parts and soil. This "dirt" can also contain the spores and "seeds" for such common microbiological contaminants as molds, fungi, mildews and bacteria. Sufficient moisture and adequate time for growth are often the final ingredients. Light is not always necessary and only moderate warmth (temperatures slightly above freezing) is required.

Although odors are often characteristic, they need not be present for problems to occur. Some health effects are dependent upon the airborne concentration of biological matter, the area's environmental conditions and individual susceptibility. Health problems can include headaches, eye and skin irritation, asthma, aggravation of existing respiratory conditions, other typical allergic symptoms, and hypersensitivity pneumonitis. Hypersensitivity and allergic responses can be triggered by very minimal exposure. Although children are often more susceptible than adults, there is evidence that within a contaminated environment occupants can become sensitized and responses may be intensified in individuals who are already sensitized.



Simply drying the affected areas seldom works because problems can persist after materials are dry due to residual spores and dead cellular matter from any microbiological growth. Some materials can be decontaminated readily by thorough cleaning and drying. However, most porous materials, in particular jute backings for carpets, may need replacing. Cleaning of installed carpeting is often unsuccessful due to the difficulty in thoroughly removing contamination from both carpet and padding. Some cleaning techniques leave the carpet wet enough, long enough, to allow contamination to reappear. For those areas where moisture is a periodic or a persistent problem, both non-porous surfaces and periodic inspections/cleanings are recommended. If carpeting is necessary, it should be readily removable for cleaning (i. e. carpet tiles, throw rugs).

Experts have stated that air or material sampling for microbial contamination, where evidence of gross contamination is clear, is not cost effective. Sampling would not result in any change in recommendations for remediation. Contaminated materials need to be removed and steps taken to prevent the reoccurrence of water damage.

For further information and assistance, contact the OH/IAQ Program at (617) 969-7177

# Reader Survey

Please take a moment to complete our survey so that we may better serve you

## Reader Response Form

Did you find this newsletter useful?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I would like more information about:

- ☐ Indoor Air Quality  
☐ Asbestos and AHERA  
☐ Lead in Renovation and Construction Issues  
☐ Other (please list)

Do you have a specific question/topic you would like us to address?

\_\_\_\_\_  
\_\_\_\_\_

I would like to be contacted for the next available asbestos

- ☐ Asbestos Awareness Training  
☐ Asbestos-Associated Project Worker  
☐ AHERA Designated Person Training

☐ Please add my name to your mailing list.

Name

Address

Phone

Email address

Please FAX us at (617) 727-7581 or Mail to: **Division of Occupational Safety  
Asbestos & Lead Program  
1001 Watertown Street, W. Newton, MA 02465  
Attn. Newsletter**



## Helpful Telephone Numbers



### Division of Occupational Safety

For questions regarding indoor air quality or to request an indoor air quality investigation contact :

### The Occupational Hygiene/Indoor Air Quality Program

Phone: 617-969-7177

Fax: 617-727-4581

For help with Asbestos, Lead or AHERA related matters or to request an asbestos or lead assessment, contact:

### The Asbestos & Lead Program

Phone: 617-969-7177

Fax: 617-727-7581

For problems or assistance with the Massachusetts Asbestos or

• Lead Abatement Regulations, contact our field offices:

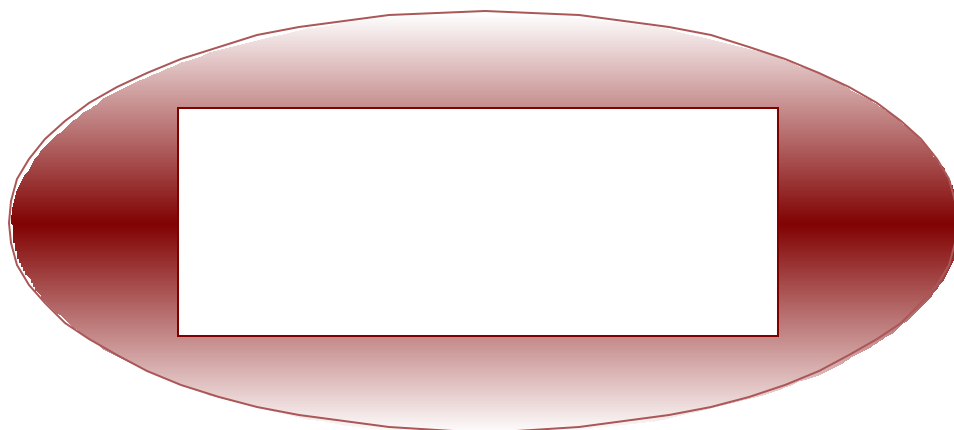
• **Asbestos & Lead Licensing and Enforcement Program**

• Complaints: 1-800-425-0004


### Regional Offices

• Boston 617-727-7047  
• West Newton 617-969-7177  
• Haverhill 978-372-9797  
• New Bedford 508-984-7718  
• Westborough 508-616-0461  
• Springfield 413-781-2676  
• Pittsfield 413-448-8746

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**Division of Occupational Safety**  
  
1001 Watertown Street  
West Newton, MA 02465

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He or she will be able take samples of the insulation, provide information on the results, and advise about additional tests or options to consider. Pages under "Asbestos Consulting and Testing" or "Asbestos Abatement." Ask the inspector to provide the name of the company that trained, accredited him or her.



Image of vermiculite insulation

Call that company to confirm whether a particular inspector has had the required training and has up-to-date accreditation. If your State has licensing, confirm that the inspector's license is also current. Companies that can test the air in your home will be found under the same listings.

#### Where can I get more information?

Information can be found on the hotline and web sites below as it becomes available.

For current information on asbestos and health related information, contact EPA's TSCA Hotline at 1-202-554-1404 or visit EPA headquarters' Asbestos web site: [www.epa.gov/asbestos](http://www.epa.gov/asbestos)  
Also visit the federal Agency for Toxic Substances and Disease Registry (ATSDR) website at [www.cdc.atsdr.gov](http://www.cdc.atsdr.gov).

URL: <http://www.epa.gov/opptintr/asbestos/insulation.htm>



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